

## HSC-300

Three 2/3-inch Power HAD FX  
CCD sensors portable SD / HD  
camera



### Overview

#### **Opening a New World of HD Production**

Sony's standard-definition (SD) and high-definition (HD) production cameras have been widely accepted by a great number of video professionals around the world, due to their excellent picture performance and system versatility.

Sony is now proud to introduce the new HSC-300 HD/SD System Camera equipped with newly developed digital triax technology, which allows systems to be configured with conventional triax.

The HSC-300 camera supports versatile applications for HD with a high-quality SD output. It uses the latest 14-bit A/D conversion circuit as well as the superb 2/3-inch Power HAD FX CCDs to bring out high picture quality.

Together with the highly compact 1.5 RU-size HSCU-300 Camera Control Unit, the HSC-300 camera offers a broad choice of system configurations including the MSU-950/900 Master Setup Unit. Thus, the HSC-300 can be used in a large-scale broadcasting system consisting of multiple cameras or as a simple studio system.

The HSC-300 also offers large-lens operation in combination with Sony's HDLA-1500 Series Large Lens Adaptors, which are

accepted worldwide for the operation with HDC Series cameras. These Lens adaptors, featuring a unique "Quick Mount" design, help to maximize the operability of the camera.

With a variety of beneficial functions packed into the camera, such as its Focus Assist function, the HSC-300 provides genuine user-friendliness.

### **Power HAD FX CCD provides even greater picture performance**

The use of a new, state-of-the-art CCD sensor ensures high quality images even at low light level. The high sensitivity of F11 at 2000 lux, together with a signal to noise ratio of -55 dB combine to deliver unprecedented picture quality.

### **Dual-format operation - 1080 50i and 720 50P.**

The HSC-300 can operate in a wide variety of capturing modes, including 1080 50i and 720/50p. In addition this system has wide-band down convertor, which offers this system as top quality HD ready SD system camera.

### **Ergonomic Design**

The design of the HSC-300 is based on over two decades of Sony experience in manufacturing broadcast video cameras and camcorders, and provides a high level of operability. All control switches and connectors are in the most logical places and are positioned for optimum functionality and ease of use. The HSC-300's low centre of gravity design allows the operator to carry the camera comfortably on the shoulder. In addition, the shoulder pad of the HSC-300 can be adjusted either forwards or backwards without using a screwdriver, so the camera can easily be moved to a well-balanced position.

### **Sophisticated large lens adaptor design with one-touch, cable-free docking**

The HDLA-1500 large lens adaptor includes a unique mechanism

which allows the HSC-300 to be quickly and easily attached and detached without removing the large lens. No additional cable connections are necessary between the camera and adaptor, thanks to a novel "hot shoe" system.

## Features

### **Power HAD FX CCD for high sensitivity**

The HSC-300 is equipped with a newly developed three 2/3-inch type 2.2-megapixel HD CCD. Based on Sony HAD sensor technology and the latest on-chip lens structure, this new CCD offers a high sensitivity of F11 at 2000 lx. In addition to this performance, a wide variety of capturing modes including 1080/50i and 720/50P.

### **14-bit A/D (Analog to Digital) conversion**

The HSC-300 utilises a 14-bit A/D convertor, which enables images captured by the high-performance CCDs to be processed with maximum precision. In particular, this high-resolution A/D conversion allows the gradation in mid-to-dark-tone areas of the picture to be faithfully reproduced. Thanks to this 14-bit A/D convertor, pre-knee signal compression at highlight areas can be eliminated and the camera can clearly reproduce a high-luminance subject at a 600% dynamic range.

### **Digital triax operation**

The HSC-300 camera utilizes a very high-quality digital triax system that expands its operability in field applications, as well as for studio production. The HSC-300's digital triax system can be integrated into conventional triax-based infrastructures, enabling an easy upgrade from existing systems.

This newly developed digital triax transmission system offers long cable runs of up to 1800 m (5906 feet)\* via a  $\varnothing$ 14.5 mm cable between the camera and the CCU.

\*The maximum cable length depends on the camera system

configuration, lens type, and the number of cable connections.

## **Newly developed Focus Assist Functions**

For easier focusing through the viewfinder, two types of focus assist functions are newly incorporated to the HSC-300: Viewfinder Detail and Focus Assist Indicator. To intuitively recognize a focusing point, users of the camera can add dedicated image-enhancing edge signals directly to the viewfinder as "Viewfinder Detail". The "Focus Assist Indicator" is a helpful tool for manual focus adjustments as a "focus meter". An indicator is displayed at the bottom or other positions of the viewfinder frame, enabling users to make more accurate and fine focus adjustments.

## **System Compatibility**

The HSC-300 camera is fully compatible with Sony's current master setup units (MSU) and remote control panels (RCP). This flexibility allows for comprehensive camera systems or simple point-to-point systems.

## **Low profile chassis design and Large lens operation.**

The position of the shoulder pad can be adjusted - either forwards or backwards - to provide users with the optimum weight balance and comfortable operation either on the shoulder or on a tripod.

In addition to this low profile chassis design, the highly flexible HDLA-1500, HDLA-1505, and HDLA-1507 Large Lens Adaptors are also available. These adaptors allow the HSC-300 to be used for many different applications and for users to choose the optimum viewfinder for the production. This capability makes the HSC-300 the most flexible portable camera in its class.

Installing the HDLA-1500/1505/1507 Large Lens Adaptor is very simple and eliminates time-consuming adjustments such as

lens centering or additional wiring.

## Specifications

### General

Power Requirements	180 V DC, 1.0 A (max.), 12 V DC, 7 A (max.)
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Operating Temperature	-20°C to +45°C -4°F to +113°F
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Storage Temperature	-20°C to +60°C -4°F to +140°F
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Mass	Approx. 4.5 kg Approx. 9 lb 15 oz
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### Camera Section

Pickup Device	3-chip 2/3-inch type, Progressive Scan Power HAD FX CCD
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Effective Picture Elements	1920 x 1080
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Signal Format	1080/50i, 59.94i, 720/50P, 59.94P, 480/59.94i, 576/50i
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Spectrum System	F1.4 prism system
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Lens Mount	Sony bayonet mount
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Built-in Filters	CC: A; CROSS, B; 3,200K, C; 4,300K, D; 6,300K ND: 1; CLEAR, 2; 1/4ND, 3; 1/8ND, 4; 1/16ND
Sensitivity (at 2000 lx, 3200 K, 89.9% reflectance)	F10 (59.94 Hz)/F11 (50 Hz) at 2000 lx (3200 K, 89.9% reflectance)
Signal-to-noise Ratio	HD : 55 dB (1080i) SD : 65 dB at 59.94 Hz, 63 dB at 50 Hz
Modulation Depth	HD : 45% at 27.5 MHz (1080i) SD : 90% at 5 MHz (1080i, typical)
Horizontal Resolution	HD : 1,000 TV lines SD : 900 TV lines
Shutter Speed	1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (59.94i mode) 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (50i mode)

## Input/Output

Audio Input (CH1)	XLR-type 3-pin (female) (x1)
Audio Input (CH2)	XLR-type 3-pin (female) (x1)

Mic Input	XLR-type 3-pin (female) (x1)
Return Control Input	6-pin (x1) BNC (x1), 1.0 Vp-p, 75 Ω
DC Input	XLR 4-pin (1), 10.5 to 17 V DC
DC Output	4-pin (1), 10.5 to 17 V DC, 0.5 A (max.)
Test Output	BNC type (1)
SDI Output	BNC type (1)
Earphone Output	Stereo minijack (1)
CCU	Triax connector (1)
Tracker	10-pin (1)
Intercom 1	XLR 5-pin, female (1)
Remote	8-pin (1)
Lens	12-pin (1)
Viewfinder	20-pin (1)

## Supplied Accessories

Supplied Accessories	Cable clamp belt (1)
	Switch label (1)
	Operation manual (1)

Related  
products



## **HDLA- 3505**

Large Lens Adaptor



## Gallery





